

CLAIMS

1. A cleaning blade for removal of an untransferred toner remaining on a surface of an image bearing member,
5 wherein a fine particles is attached to a surface of at least a portion of said cleaning blade to come into contact with said image bearing member in an amount of 1 to 10 mg/cm².
- 10 2. The cleaning blade according to claim 1, wherein the fine particles has an average particle diameter of at least 0.1 μ m.
3. The cleaning blade according to claim 1, wherein the
15 fine particles is in an aspheric shape.
4. The cleaning blade according to claim 3, wherein the aspheric fine particles has a sphericity of greater than 1.3 as expressed in terms of a dl/ds ratio where dl is a
20 major axis of a particle and ds is a miner axis of a particle.
5. The cleaning blade according to claim 1, wherein the fine particles is at least one selected from the group
25 consisting of organic fine particles, inorganic fine particles and toner.

6. The cleaning blade according to claim 5, wherein the organic fine particles comprises a synthetic resin selected from polyolefin resins, fluororesins, polyester resins, acrylic resins, aromatic vinyl resins and
5 copolymer resins.

7. The cleaning blade according to claim 6, wherein the organic fine particles is an aspheric, pulverized resin fine particles obtained by pulverization of a synthetic
10 resin.

8. The cleaning blade according to claim 7, wherein the synthetic resin is a polyester resin or a styrene-acrylate copolymer resin.
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9. The cleaning blade according to claim 5, wherein the fine particles is an aspheric pulverized toner comprising a binder resin and a colorant.

20 10. The cleaning blade according to claim 5, wherein the inorganic fine particles is a inorganic fine particles selected from calcium carbonate, calcium phosphate, silica and molybdenum sulfide.

25 11. The cleaning blade according to claim 10, wherein the calcium carbonate is a cubic calcium carbonate.

12. The cleaning blade according to claim 1, which is formed of an elastic material.

13. The cleaning blade according to claim 12, wherein
5 the elastic material is a conjugated diene rubber, polyurethane, fluororubber or silicone rubber.

14. The cleaning blade according to claim 1, which has a JIS A hardness of 40 to 90 degrees.

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15. The cleaning blade according to claim 1, wherein the untransferred toner is a spherical toner that has a volume average particle diameter of 2 to 10 μm , a particle diameter distribution of 1.3 or lower as expressed in
15 terms of a dv/dp ratio where dv is a volume average particle diameter and dp is a number average particle diameter, and a sphericity of 1 to 1.3 as expressed in terms of a dl/ds ratio wherein dl is a major axis of a particle and ds is a miner axis of a particle.

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16. A process for producing a surface treated cleaning blade for removal of an untransferred toner remaining on a surface of an image bearing member, which comprises applying a nonionic surfactant to a surface of at least a
25 portion of a cleaning blade to come into contact with the image bearing member, and attaching a fine particles to the surfactant-applied portion in an amount of 1 to 10

mg/cm², followed by drying.

17. The production process according to claim 16,
wherein the nonionic surfactant is applied to the surface
5 of at least the portion of the cleaning blade to come into
contact with the image bearing member, and while the
nonionic surfactant is being wetted, the fine particles is
brought into contact with the nonionic surfactant to
attach to the surfactant-applied portion substantially
10 uniformly, followed by drying at a temperature of 30 to
90°C.

18. An image forming device equipped with a cleaning
blade for removal of an untransferred toner remaining on a
15 surface of an image bearing member, wherein said cleaning
blade is a cleaning blade which comprises a fine particles
attached to a surface of at least a portion of the
cleaning blade to come into contact with the image bearing
member in an amount of 1 to 10 mg/cm².

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19. An image forming method making use of an image
forming device equipped with a cleaning blade for removal
of an untransferred toner remaining on a surface of an
image bearing member, wherein a cleaning blade, which
25 comprises a fine particles attached to a surface of at
least a portion thereof to come into contact with the
image bearing member in an amount of 1 to 10 mg/cm², is

used as said cleaning blade, and a spherical toner is used as a toner.

20. The image forming method according to claim 19,
5 wherein the spherical toner is a spherical toner which is colored in a color tone selected from cyan, yellow, magenta and black.